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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/749,936	12/30/2003	Brett D. Brewer	306397.01	6684

22971 7590 02/24/2010

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EXAMINER	
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ART UNIT	PAPER NUMBER
2167	

NOTIFICATION DATE	DELIVERY MODE
02/24/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/749,936	BREWER ET AL.	
	Examiner	Art Unit	
	SUSAN FOSTER RAYYAN	2167	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 February 2010*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-6,10-17,20,21,23-25 and 27-40* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1, 3-6,10-17, 20-21,23-25, 27-40* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Claim 40 is newly added. Claims 2, 7-9, 18-19, 22, 26 are canceled.

2. Claims 1,3-6,10-17,20-21, 23-25,27-40 are currently pending.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claim 1,3,6,10,12, 38,39 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent Number 6,564,213 issued to Ruben E. Ortega et al ("Ortega") and US 2004/0143564 issued to William Gross et al. ("Gross") and US Patent 6,947,930 issued Peter G. Anick et al ("Anick") and US 6,434,547 issued to David J. Mishelevich et al ("Mishelevich").

As per independent claim 1 Ortega teaches:

a) defining one or more query related character patterns that do not include an explicit indicator of query submission (Figure 2A, Ref.No. 60, user types in SO), wherein at least one or more query related character pattern is a string of characters ... before

additional characters are entered (Figure 2A, Ref.No. 60, user types in SO, figure 2B and column 5, lines 23-24, reference number 60, user has completed term "SONY");
b) monitoring entry of query defining characters by a user to detect entry of a defined query related character pattern (Figure 2A, displays the auto completion strings (replacement options) for "SO");
providing the user with one or more suggested query replacement options each time a defined query related character pattern is detected without requiring the user to provide the explicit indicator of the query submission" (Figure 2A, Reference No. 62, auto completion strings (replacement options), Figure 2A- 2B and column 5, lines 23-36, Figure 2A displays the auto completion strings (replacement options) for "SO" , the terms and phrases (replacement options) are displayed and the user selects one and the replacement option replaces the "SO" (defined query related character pattern) it is added to the search field and at Figure 2B the display shows the incrementally updated auto completion strings (replacement options) for "SONY" and column 5, lines 46-51, user initiates search without moving stylus).

Ortega does not explicitly teach providing the user with an updated query result each time a defined query related character is detected without requiring the user to provide the explicit indicator of the query submission. Gross does teach this limitation (paragraph 10, lines 6-11, as immediately after each character in a search sting is entered by the user the user receives immediate feedback and paragraph 13, lines 4-14) to provide immediate feedback and so can decide on the desirability of entering

additional search characters. It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify Ortega with providing the user with an updated query result each time a defined query related character is detected without requiring the user to provide the explicit indicator of the query submission to provide immediate feedback and so can decide on the desirability of entering additional search characters (paragraph 181, lines 5-9).

Ortega and Gross do not explicitly teach the one or more suggested query refinement options including a broadening suggestion, at least one or more suggested query refinement options (a) beginning with a character pattern other than the query related character pattern, and (b) replace the query related character pattern when selected by the user. Anick does teach this limitation at (Figure 2 and column 8, lines 31-51, automatically provide user with a set of candidate terms which may be used as addition or replacement of initial query. Initial query of SPACE SHUTTLE returns a set of candidate terms such as CHALLENGER DISASTER. See figure 2 "click >> to replace your search") It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Ortega and Gross with the one or more suggested query replacement options including a broadening suggestion, the one or more suggested query replacement options beginning with a character pattern other than the query related character pattern to build an improved query without analyzing documents within the initial group of ranked documents as described by Anick at column 8, lines 40-45.

Ortega, Gross and Anick do not explicitly teach a predetermined time delay. Mishelevich does teach a predetermined time delay at column 10, line 65 bridging to column 11, line 22, as "the system may be set up to automatically move to the next section after a predefined time period , or may monitor the user's input rate and rhythm to find an appropriate time delay before moving on the next data input area". (The detectable pause is an indicator that the user has finished data entry and so the computer should take action. The user's inactivity is a trigger for a computer event). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Ortega, Gross and Anick with a predetermined time delay to provide an efficient means to gather data and verify accuracy as described by Mishelevich at column 2, lines 3-7.

As per claim 3, same as claim arguments above and Ortega teaches:
further comprising tracking results selected by one or more users and adjusting the suggested query refinement options based on a history of results previously selected by the one or more users (column 2, lines 30-35, most popular items in the database).

As per claim 6, same as claim arguments above and Ortega teaches:
wherein one defined query related character pattern is a string of characters followed by a space (Figure 2B).

As per claim 10, same as claim arguments above and Ortega teaches:
further comprising providing a user input that allows the user to adjust the query related character patterns (Figure 2A Reference 60).

Claim 12 is rejected based on the same rationale as claim 1.

As per claim 38, same as claim arguments above and Anick teaches:
Wherein the broadening suggestion does not includes the query related character pattern (Figure 2 and column 8, lines 31-51, Initial query of SPACE SHUTTLE returns a set of candidate terms such as CHALLENGER DISASTER.)

As per claim 39 same as claim arguments above and Anick teaches:

replacing the one or more query related character patterns with at least one of the one or more suggested query refinement options (Figure 2 and column 8, lines 31-51, automatically provide user with a set of candidate terms which may be used as addition or replacement of initial query.)

5. Claim 13-17,20 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent Number 6,564,213 issued to Ruben E. Ortega et al ("Ortega") and

US 2004/0143564 issued to William Gross et al. ("Gross") and US 6,434,547 issued to David J. Mishelevich et al ("Mishelevich").

As per independent claim 13 Ortega teaches:

providing a user with one or more suggested query refinement options as the user enters query defining characters (Figure 2A, Reference No. 62, auto completion strings (replacement options), Figure 2A- 2B and column 5, lines 23-36, Figure 2A displays the auto completion strings (replacement options) for "SO" , the terms and phrases (replacement options) are displayed and the user selects one and the replacement option replaces the "SO" (query defining character) it is added to the search field and at Figure 2B the display shows the incrementally updated auto completion strings (replacement options) for "SONY" and column 5, lines 46-51, user initiates search without moving stylus).

and wherein the query defining word includes a string of characters followed by ... before additional characters are entered by the user. (Figure 2A, Ref.No. 60, user types in SO, figure 2B and column 5, lines 23-24, reference number 60, user has completed term "SONY");

b) detecting entry of a query defining word by the user without requiring a user to provide an explicit indicator of query submission (Figure 2B, displays results of the detecting (replacement options) for "SONY" and column 5, lines 46-51, user initiates search without moving stylus).

Ortega does not explicitly teach providing the user with an updated query results each time entry of a query defining word is detected without requiring the user to provide the explicit indicator of the query submission .Gross does teach this limitation (paragraph 10, lines 6-11, as immediately after each character in a search sting is entered by the user the user receives immediate feedback and paragraph 13, lines 4-14) to provide immediate feedback and so can decide on the desirability of entering additional search characters. It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify Ortega with providing the user with an updated query result each time entry of a query defining word is detected without requiring the user to provide the explicit indicator of the query submission and wherein the query defining word includes a string of characters followed by a predefined time delay before additional characters are entered by the user to provide immediate feedback and so can decide on the desirability of entering additional search characters as described by Gross (paragraph 181, lines 5-9).

Ortega, Gross do not explicitly teach a predetermined time delay. Mishelevich does teach a predetermined time delay at column 10, line 65 bridging to column 11, line 22, as "the system may be set up to automatically move to the next section after a predefined time period , or may monitor the user's input rate and rhythm to find an appropriate time delay before moving on the next data input area". (The detectable pause is an indicator that the user has finished data entry and so the computer should take action. The user's inactivity is a trigger for a computer event). It would have been

obvious to a person of ordinary skill in the art at the time the invention was made to modify Ortega, Gross with a predetermined time delay to provide an efficient means to gather data and verify accuracy as described by Mishelevich at column 2, lines 3-7.

As per claim 14, same as claim arguments above and Ortega teaches:
further comprising tracking queries entered by one or more users and adjusting the suggested query refinement options based on a history of queries previously entered by the one or more users(column 2, lines 20-24 and column 3, lines 10-12).

As per claim 15, same as claim arguments above and Ortega teaches:
comprising tracking results selected by one or more users and adjusting the suggested query refinement options based on a history of results previously selected by the one or more users (column 2, lines 30-35, most popular items in the database).

As per claim 17, same as claim arguments above and Ortega teaches:
wherein one defined query related character pattern is a string of characters followed by a space (Figure 2B).

Claim 20 is rejected based on the same rationale as claim 13.

6. Claim 40 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent Number 6,564,213 issued to Ruben E. Ortega et al ("Ortega") and US 2004/0143564 issued to William Gross et al. ("Gross") and US 6,434,547 issued to David J. Mishelevich et al ("Mishelevich") and further in view of US Patent 6,947,930 issued Peter G. Anick et al ("Anick").

As per Claim 40, same as claim arguments above and Ortega and Gross and Mishelevich do not explicitly teach wherein the one or more query refinement options includes a broadening suggestion, and wherein at least one of the one or more query refinement options (a) does not begin with the query defining characters, and (b) replaces the query related character pattern when the at least one of the one or more query refinement options is selected by the user. Anick does teach this limitation at (Figure 2 and column 8, lines 31-51, automatically provide user with a set of candidate terms which may be used as addition or replacement of initial query. Initial query of SPACE SHUTTLE returns a set of candidate terms such as CHALLENGER DISASTER. See figure 2 "click >> to replace your search") It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Ortega and Gross and Mishelevich with wherein the one or more query refinement options includes a broadening suggestion, and wherein at least one of the one or more query refinement options (a) does not begin with the query defining characters, and (b) replaces the query related character pattern when the at least one of the one or more query refinement options is selected by the user to build an improved query without analyzing

documents within the initial group of ranked documents as described by Anick at column 8, lines 40-45.

7. Claims 5, 21, 23-25, 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent Number 6,564,213 issued to Ruben E. Ortega et al ("Ortega") and US 2004/0143564 issued to William Gross et al ("Gross") and US Patent 6,947,930 issued Peter G. Anick et al ("Anick") and US 6,434,547 issued to David J. Mishelevich et al ("Mishelevich") in view of US Publication Number 2006/0112178 issued to Taylor N. Van Vleet ("Van Vleet").

As per claim 5, same as claim arguments above and Ortega and Gross and Anick and Mishelevich do not explicitly teach further comprising providing a visual indicator to the user when an updated query result list is provided to the user. Van Vleet does teach this limitation (paragraph 12, 30 and Figure 3, as highlighting the updated search results, Figure 3: "new search results since") to personalize search result items. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Ortega and Gross and Anick and Mishelevich with providing a visual indicator to the user each time the updated query result list is provided to the user to personalize search result items as described by Van Vleet (paragraph 12).

As per independent claim 21 Ortega teaches:

a) providing a user with replacement alternatives as the user enters query defining characters(Figure 2A, Reference No. 62 , auto completion strings (replacement options), Figure 2A- 2B and column 5, lines 23-36, Figure 2A displays the auto completion strings (replacement options) for "SO" and at Figure 2B the display shows the incrementally updated auto completion strings (replacement options) for "SONY");

b) detecting entry of a completed query defining word by the user ... following the query defining characters before additional characters are entered by the user (Figure 2B, displays results of the detecting (replacement options) for "SONY" Figure 2A, Ref.No. 60, user types in SO, figure 2B and column 5, lines 23-24, reference number 60, user has completed term "SONY");

d) providing the user with query refinement options related to the query defining word without requiring the user to provide the explicit indicator of the query submission (Figure 2B, displays auto completion strings (replacement options) for "SONY" and column 5, lines 46-51, user initiates search without moving stylus) (Figure 2A, Reference No. 62, auto completion strings (replacement options), Figure 2A- 2B and column 5, lines 23-36, Figure 2A displays the auto completion strings (replacement options) for "SO" , the terms and phrases (replacement options) are displayed and the user selects one and the replacement option replaces the "SO" (defined query related character pattern) it is added to the search field and at Figure 2B the display shows the

incrementally updated auto completion strings (replacement options) for "SONY" and column 5, lines 46-51, user initiates search without moving stylus)

e) determining the user selected a provided query refinement option (column 5, lines 37-40, selecting and submitting the auto completion strings (selected replacement option) for searching).

Ortega does not explicitly teach providing the user with a query result list each time a query defining word is detected without requiring the user to provide the explicit indicator of query submission and providing the user with an updated query result, responsive to the determining the user selected a provided query refinement option. Gross does teach this limitation (paragraph 10, lines 6-11, as immediately after each character in a search sting is entered by the user the user receives immediate feedback and paragraph 13, lines 4-14) to provide immediate feedback and so can decide on the desirability of entering additional search characters. It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify Ortega with providing the user with a query result list each time a query defining word is detected without requiring the user to provide the explicit indicator of query submission and providing the user with an updated query result list when it is determined that the user has selected a provided query replacement option to provide immediate feedback and so can decide on the desirability of entering additional search characters as described by Gross(paragraph 181, lines 5-9).

Ortega and Gross do not explicitly teach the one or more suggested query replacement options including a broadening suggestion, the one or more suggested query replacement options beginning with a character pattern other than the query related character pattern. Anick does teach this limitation at (Figure 2 and column 8, lines 31-51, automatically provide user with a set of candidate terms which may be used as addition or replacement of initial query. Initial query of SPACE SHUTTLE returns a set of candidate terms such as CHALLENGER DISASTER.) It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Ortega and Gross with the one or more suggested query replacement options including a broadening suggestion, the one or more suggested query replacement options beginning with a character pattern other than the query related character pattern to build an improved query without analyzing documents within the initial group of ranked documents as described by Anick at column 8, lines 40-45.

Ortega, Gross and Anick do not explicitly teach a predetermined time delay. Mishelevich does teach a predetermined time delay at column 10, line 65 bridging to column 11, line 22, as "the system may be set up to automatically move to the next section after a predefined time period , or may monitor the user's input rate and rhythm to find an appropriate time delay before moving on the next data input area". (The detectable pause is an indicator that the user has finished data entry and so the computer should take action. The user's inactivity is a trigger for a computer event). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Ortega, Gross and Anick with a predetermined time delay to

provide an efficient means to gather data and verify accuracy as described by Mishelevich at column 2, lines 3-7.

Ortega and Gross and Anick and Mishelevich do not explicitly teach providing a visual indicator to the user each time the updated query result list is provided to the user. Van Vleet does teach this limitation (paragraph 12, 30 and Figure 3, as highlighting the updated search results, Figure 3: "new search results since") to personalize search result items. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Ortega and Gross and Anick and Mishelevich with providing a visual indicator to the user each time the updated query result list is provided to the user to personalize search result items as described by Van Vleet (paragraph 12).

As per claim 23, same as claim arguments above and Ortega teaches:
wherein the updated query result list includes result listings from a user hard drive, an intranet server, and an Internet server (column 3, line 25-35).

Claim 24 is rejected based on the same rationale as claim 21.

As per independent claim 25 Ortega teaches:

a) a query entry text box for entering query defining characters (Figure 2A, search box, Ref.No. 60);

b) a query refinement option list including at least one of user selectable query refinement option(Figure 2A, Reference No. 62 , auto completion strings (replacement options)) that is incrementally updated as a query is entered into the query entry text box … (Figure 2A- 2B and column 5, lines 23-36, Figure 2A displays the auto completion strings (replacement options) for "SO" and at Figure 2B the display shows the incrementally updated auto completion strings (replacement options) for "SONY", user can initiate search without moving stylus away from the selected string) (column 5, lines 23-36, Figure 2A displays the auto completion strings (replacement options) for "SO" , the terms and phrases (replacement options) are displayed and the user selects one and the replacement option replaces the "SO" -it is added to the search field and at Figure 2B the display shows the incrementally updated auto completion strings (replacement options) for "SONY" .

Ortega does not explicitly teach a query result list that is incrementally updated as a query is entered into the query box without requiring the user to provide the explicit indicator of the query submission, wherein the incremental updating of the query refinement option is based on … following the entry of query defining characters before additional characters are entered by the user. Gross does teach this limitation (paragraph 10, lines 6-11, as immediately after each character in a search sting is

entered by the user the user receives immediate feedback and paragraph 13, lines 4-14) to provide immediate feedback and so can decide on the desirability of entering additional search characters. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Ortega with a query result list that is incrementally updated as a query is entered into the query box without requiring the user to provide the explicit indicator of the query submission, wherein the incremental updating of the query refinement option is based on ... following the entry of query defining characters before additional characters are entered by the user to provide immediate feedback and so can decide on the desirability of entering additional search characters (paragraph 181, lines 5-9).

Ortega and Gross do not explicitly teach the one or more suggested query refinement options including a broadening suggestion, the one or more suggested query refinement options beginning with a character pattern other than the query related character pattern. Anick does teach this limitation at (Figure 2 and column 8, lines 31-51, automatically provide user with a set of candidate terms which may be used as addition or replacement of initial query. Initial query of SPACE SHUTTLE returns a set of candidate terms such as CHALLENGER DISASTER.) It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Ortega and Gross with the one or more suggested query replacement options including a broadening suggestion, the one or more suggested query replacement options beginning with a character pattern other than the query related character pattern to build

an improved query without analyzing documents within the initial group of ranked documents as described by Anick at column 8, lines 40-45.

Ortega, Gross and Anick do not explicitly teach a predetermined time delay. Mishelevich does teach a predetermined time delay at column 10, line 65 bridging to column 11, line 22, as "the system may be set up to automatically move to the next section after a predefined time period , or may monitor the user's input rate and rhythm to find an appropriate time delay before moving on the next data input area". (The detectable pause is an indicator that the user has finished data entry and so the computer should take action. The user's inactivity is a trigger for a computer event). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Ortega, Gross and Anick with a predetermined time delay to provide an efficient means to gather data and verify accuracy as described by Mishelevich at column 2, lines 3-7.

Ortega and Gross and Anick and Mishelevich do not explicitly teach a visual indicator that indicates when the query result list is updated. Van Vleet does teach this limitation (paragraph 12, 30 as highlighting the updated search results, Figure 3: "new search results since") to personalize search result items. It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify Ortega and Gross and Anick and Mishelevich with a visual indicator that indicates when the query result list is updated to personalize search result items as described by Van Vleet (paragraph 12).

As per claim 27, same as claim arguments above and Ortega teaches: further comprising a user selectable search icon for manually executing a query defined by characters in the query entry text box (Figure 2A, Ref. No. 66).

8. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ortega and Gross and Anick and Mishelevich et al as applied to claims 1, 13 above and further in view of US Patent Number 6,006225 issued to Dwayne E. Bowman et al ("Bowman").

As per claim 4 same as claim arguments above and Ortega and Gross and Anick and Mishelevich do not explicitly teach further comprising tracking results selected by one or more users and adjusting an order of the updated query result list based on a history of results previously selected by the one or more users . Bowman does teach this limitation at column 7, lines 45-50 to produce a successful query result. It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify Ortega and Gross Anick and Mishelevich with tracking results selected by one or more users and adjusting an order of the updated query result list based on a history of results previously selected by the one or more users to produce a successful query result as described by Bowman (column 2, lines 44-46).

9. **Claim 16 is are rejected under 35 U.S.C. 103(a) as being unpatentable over Ortega and Gross and Mishelevich et al as applied to claim13 above and further in view of US Patent Number 6,006225 issued to Dwayne E. Bowman et al ("Bowman").**

As per claim 16, same as claim arguments above and Ortega and Gross and Mishelevich do not explicitly teach tracking results selected by one or more users and adjusting an order of the updated query result list based on a history of results previously selected by the one or more users. Bowman does teach this limitation at column 7, lines 45-50 to produce a successful query result. It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify Ortega and Gross and Mishelevich with tracking results selected by one or more users and adjusting an order of the updated query result list based on a history of results previously selected by one or more users and adjusting an order to produce a successful query result as described by Bowman (column 2, lines 44-46).

10. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ortega and Gross and Anick and Mishelevich in view Van Vleet as applied to claims 25 above, and further in view of US Patent Application Publication Number 2006/0129915 issued to Ning-Ping Chan ("Chan").

11. As per claim 29, same as claim arguments above and Ortega and Gross and Anick and Mishelevich in view of Van Vleet do not explicitly teach wherein the query result list is animated for a predetermined period of time after the query result list is updated. Chan does teach this limitation at (paragraph 54, blinking search results) to provide a visual cue. It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify Ortega and Gross and Anick and Mishelevich in view of Van Vleet with teach wherein the query result list is animated for a predetermined period of time after the query result list is updated to provide a visual cue as described by Chan (paragraph 114).

12. Claim 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent Number 6,564,213 issued to Ruben E. Ortega et al ("Ortega") and US 2004/0143564 issued to William Gross et al ("Gross") and US Patent 6,947,930 issued Peter G. Anick et al ("Anick") and US 6,434,547 issued to David J. Mishelevich et al ("Mishelevich") in view of US Publication Number 2006/0112178 issued to Taylor N. Van Vleet ("Van Vleet") and further in view of US 6714214 issued to Mareo A. DeMello et al ("DeMello").

As per claim 28, same as claim arguments above and Ortega,Gross, Anick, Mishelevich in view of Van Vleet do not explicitly teach wherein the query replacement option list is semi-transparent. DeMello does teach this limitation at column 6, line 61 – column 7, line 12 and Figure #B , as window may be transparent. It would have been obvious to a person of ordinary skill I the art at the time the invention was made to

modify Ortega,Gross, Anick, Mishelevich in view of Van Vleet with wherein the query replacement option list is semi-transparent to provide a user a means to interact with a electronic document display with a simple user interface as described by DeMello at summary, lines 1-5).

13. Claim 11, 30-32, are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent Number 6,564,213 issued to Ruben E. Ortega et al ("Ortega") and US 2004/0143564 issued to William Gross et al. ("Gross") and US Patent 6,947,930 issued Peter G. Anick et al ("Anick") and US 6,434,547 issued to David J. Mishelevich et al ("Mishelevich") in view of in view of US Patent Application Publication Number 2003/0182463 issued to Jeffery W. Valk ("Valk").

As per claim 11, same as claim arguments above and Ortega and Gross and Anick and Mishelevich do not explicitly teach in response to a change in a connection speed at a client-server connection ... to occur more frequently as the connection speed increases. Valk does teach this limitation (paragraph 59, as connection speed limits ability to provide information such as dialup versus high speed and it is desirable to limit the amount of information sent to what is needed to perform complex tasks, can rune quickly even in the most remote locations on low-bandwidth for smaller companies, yet remain robust enough to handle the complicated needs facing multi-billion dollar companies. It would have been obvious to a person of ordinary skill in the art at the

time of the invention was made to modify the datasets (defined query related character patterns) of Ortega and Gross and Anick and Mishelevich with in response to a change in a connection speed at a client-server connection ... to occur more frequently as the connection speed increases to perform complex tasks, can rune quickly even in the most remote locations on low-bandwidth for smaller companies , yet remain robust enough to handle the complicated needs facing multi-billion dollar companies as described by Valk (paragraph 14, lines 19-26).

As per independent claim 30 Ortega teaches:

a) a user input device enabling input of query defining text characters (Figure 2A, search box, Ref.No. 60);

b) a display (Figure 1);

c) a data content that is searchable (column 2, lines 10-15, searchable database);

a network connection for accessing at least a portion of the data content (column 2, lines 10-15);

d) a memory in which machine instructions are stored (Figure 1);

e) a processor that is coupled to the user input device, to the display, to the data content, to the network connection and to the memory, the processor executing the machine instructions to carry out a plurality of functions (Figure 1), including:

i) defining one or more query related character patterns that do not include

an explicit indicator of query submission , wherein the at least one of the one or more query related character patterns is a string of characters followed by ... before additional characters are entered (column 2, lines 6-8, generating auto completion strings datasets);

ii) monitoring entry of query defining characters by a user to detect entry of a defined query related character pattern (column 5, lines 27-29, query entered and suggested auto completion strings (character pattern) are displayed);

providing the user with query refinement options each related to the detected defined query character pattern without requiring the user to provide the explicit indicator of the query submission (Figure 2A, Reference No. 62 , auto completion strings (replacement options), Figure 2A- 2B and column 5, lines 23-36, Figure 2A displays the auto completion strings (replacement options) for "SO" and at Figure 2B the display shows the incrementally updated auto completion strings (replacement options) for "SONY" and column 5, lines 46-51, user initiates search without moving stylus);

changing the defined query related character patterns (column 2, lines 35-37, as datasets (defined query related character patterns) are customized for users or user groups and column 3, lines 42-50 teaches a variety of devices such as PDA and conventional PCs and column 4, lines 34-44, as downloading new datasets (defined query related character patterns).

Ortega does not explicitly teach searching the data content and providing the user with an updated query result when a ... query ... is detected without requiring the user

to provide the explicit indicator of query submission. Gross does teach this limitation (paragraph 10, lines 6-11, as immediately after each character in a search sting is entered by the user the user receives immediate feedback and paragraph 13, lines 4-14) to provide immediate feedback and so can decide on the desirability of entering additional search characters. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Ortega with searching the data content and providing the user with an updated query result when a ... query ... is detected without requiring the user to provide the explicit indicator of query submission to provide the explicit indicator of the query submission to provide immediate feedback and so can decide on the desirability of entering additional search characters (paragraph 181, lines 5-9).

Ortega and Gross do not explicitly teach the at least one query replacement options include a broadening suggestion, the one or more suggested query replacement options beginning with a character pattern other than the query related character pattern. Anick does teach this limitation at (Figure 2 and column 8, lines 31-51, automatically provide user with a set of candidate terms which may be used as addition or replacement of initial query. Initial query of SPACE SHUTTLE returns a set of candidate terms such as CHALLENGER DISASTER.) It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Ortega and Gross with the one or more suggested query replacement options including a broadening suggestion, the one or more suggested query replacement options beginning with a character pattern other than the query related character pattern to build

an improved query without analyzing documents within the initial group of ranked documents as described by Anick at column 8, lines 40-45.

Ortega, Gross and Anick do not explicitly teach a predetermined time delay. Mishelevich does teach a predetermined time delay at column 10, line 65 bridging to column 11, line 22, as "the system may be set up to automatically move to the next section after a predefined time period , or may monitor the user's input rate and rhythm to find an appropriate time delay before moving on the next data input area". (The detectable pause is an indicator that the user has finished data entry and so the computer should take action. The user's inactivity is a trigger for a computer event). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Ortega, Gross and Anick with a predetermined time delay to provide an efficient means to gather data and verify accuracy as described by Mishelevich at column 2, lines 3-7.

Ortega and Gross and Anick and Mishelevich do not explicitly teach in response to a change in a connection speed at a client-server connection. Valk does teach this limitation (paragraph 59, as connection speed limits ability to provide information such as dialup versus high speed and it is desirable to limit the amount of information sent to what is needed to perform complex tasks, can run quickly even in the most remote locations on low-bandwidth for smaller companies, yet remain robust enough to handle the complicated needs facing multi-billion dollar companies. It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the

datasets (defined query related character patterns) of Ortega and Gross and Anick and Mishelevich with in response to a change in a connection speed at a client-server connection to perform complex tasks, can rune quickly even in the most remote locations on low-bandwidth for smaller companies , yet remain robust enough to handle the complicated needs facing multi-billion dollar companies as described by Valk (paragraph 14, lines 19-26).

As per claim 31, same as claim arguments above and Ortega teaches:
wherein the searchable database resides on one or more remote computers and data used to define the one or more query related character patterns resides on a user terminal (column 3, lines 5-15, column 4, lines 36-40).

As per claim 32, same as claim arguments above and Ortega teaches:
wherein the data content includes data stored on a user hard drive, data stored on an intranet server, and data stored on an Internet server (column 3, line 25-35).

14. **Claims 33,34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ortega and Gross and Anick and Mishelevich in view of US Patent Publication 2003/0225756 issued to Songqiao Liu ("Liu").**
As per claims 34,34 same as claim arguments above and Ortega and Gross and

Anick and Mishelevich do not explicitly teach wherein the broadening suggestion further includes a broadening icon. Liu does teach this limitation (see Figure 2, BT (broadening icon)). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Ortega and Gross and Anick and Mishelevich with wherein the broadening suggestion further includes a broadening icon to automatically provide additional and meaningful search criteria to the search query as described by Liu at paragraph 0011.

15. Claims 35-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ortega and Gross and Anick and Mishelevich in view of in view of Van Vleet and further in view of US Patent Publication 2003/0225756 issued to Songqiao Liu ("Liu").

As per claims 35-36 same as claim arguments above and Ortega and Gross and Anick and Mishelevich in view of Van Vleet do not explicitly teach wherein the broadening suggestion further includes a broadening icon. Liu does teach this limitation (see Figure 2, BT (broadening icon)). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Ortega and Gross and Anick and Mishelevich in view of Van Vleet with wherein the broadening suggestion further includes a broadening icon to automatically provide additional and meaningful search criteria to the search query as described by Liu at paragraph 0011.

16. **Claims 37 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ortega and Gross and Anick and Mishelevich in view of Valk and further in view of US Patent Publication 2003/0225756 issued to Songqiao Liu ("Liu").**

As per claim 37 same as claim arguments above and Ortega and Gross and Anick and Mishelevich in view of in view of Valk do not explicitly teach wherein the broadening suggestion further includes a broadening icon. Liu dos teach this limitation (see Figure 2, BT (broadening icon)). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Ortega and Gross and Anick and Mishelevich in view of in view of Valk with wherein the broadening suggestion further includes a broadening icon to automatically provide additional and meaningful search criteria to the search query as described by Liu at paragraph 0011.

Response to Arguments

17. Applicant's arguments with respect to claims 1,3-6,10-17,20-21, 23-25,27-40 have been considered but are moot in view of the new ground(s) of rejection.

18. Applicant argues prior art of record does not teach predetermined time delay. Mishelevich does teach a predetermined time delay at column 10, line 65 bridging to

column 11, line 22, as "the system may be set up to automatically move to the next section after a predefined time period, or may monitor the user's input rate and rhythm to find an appropriate time delay before moving on the next data input area". (The detectable pause is an indicator that the user has finished data entry and so the computer should take action. The user's inactivity is a trigger for a computer event).

19. Applicant argues prior art of record does not teach wherein the query replacement option list is semi-transparent of dependent claim 28. DeMello does teach this limitation at column 6, line 61 –column 7, line 12 and Figure 3B , as window may be transparent.

20. The specification objection has been withdrawn based on amendment.

21. The rejection of claim 28 under 35 USC 112 first paragraph has been withdrawn based on Applicant's augments.

Response to After Final

22. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

23. Amendment After Final has been entered.

24. Applicant argues Examiner failed to consider rebuttal arguments for claim 13. However, Applicant's arguments were directed to "pre-determined time delay". Applicant's arguments with respect to claim13 were considered but were moot in view of the new ground(s) of rejection. The new grounds of rejection included Mishelevich to

teach "a predetermined time delay (See above rejection). Ortega is cited for teaching wherein the query defining word includes a string of characters followed by ... before additional characters are entered by the user. (Figure 2A, Ref.No. 60, user types in SO, figure 2B and column 5, lines 23-24, reference number 60, user has completed term "SONY"). In Ortega, there is a time delay after the user types in "SO" and before additional characters are entered such as "N" for "SON". Ortega does not explicitly teach the time delay is predetermined. However in the newly cited Mishelevich the "predetermined time delay is taught at column 10, line 65 bridging to column 11, line 22, as monitor the user's input rate and rhythm to find an appropriate time delay before moving on the next data input area. (The detectable pause is an indicator that the user has finished data entry and so the computer should take action. The user's inactivity is a trigger for a computer event). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Ortega, Gross with a predetermined time delay to provide an efficient means to gather data and verify accuracy as described by Mishelevich at column 2, lines 3-7.

Contact Information

25. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Susan F. Rayyan whose telephone number is 571-272-1675. The examiner can normally be reached on M-F, 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cottingham can be reached on 571-272-7079. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/SUSAN FOSTER RAYYAN/
Examiner, Art Unit 2167
February 16, 2010

/John R. Cottingham/

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